

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number
WO 2005/083239 A1

(51) International Patent Classification⁷: **F01L 9/02**

(21) International Application Number:
PCT/SE2005/000270

(22) International Filing Date: 25 February 2005 (25.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0400503-9 1 March 2004 (01.03.2004) SE

(71) Applicant (for all designated States except US):
CARGINE ENGINEERING AB [SE/SE]; Kom-
panigatan 10, 1tr, S-254 38 Helsingborg (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HEDMAN, Mats**
[SE/SE]; Båvensvik, S-640 34 Sparreholm (SE).

(74) Agent: **DR LUDWIG BRANN PATENTBYRÅ AB**; Box
17192, S-104 62 Stockholm (SE).

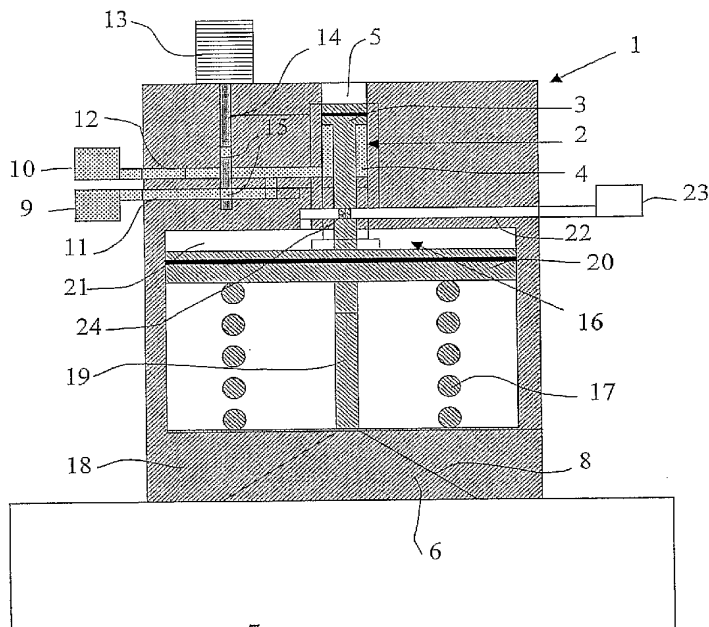
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A METHOD OF GENERATING PRESSURE PULSES, A PRESSURE PULSE GENERATOR AND A PISTON ENGINE PROVIDED THEREWITH



(57) Abstract: A pressure pulse generator comprising a pressure pulse transmitting body (3) which is displaceably arranged in a chamber (2), said chamber (2), divided by said body (3) into a first and a second part (4, 5), a first spring and a second spring (16, 17), arranged to displace said body (3) in a first direction and a second direction respectively in said chamber, a first conduit (11) leading between a high pressure source (9) and a first part (4) of the chamber (2), wherein the pressure fluid in the first part (4) of the chamber acts on said body (3) for displacing the latter in the second direction, and means (13, 14) for opening/interrupting a communication between the first part (4) of the chamber (2) and the high pressure source through the first conduit (11). The means for opening/interrupting the communication between the first part (4) of the chamber (2) and the high pressure source (9) are arranged to interrupt the communication therebetween while the body (3) is displaced in the first direction from a predetermined starting position through a triggering of the first spring (16), and arranged to keep the communication between the first part (4) of the chamber (2) and the high pressure source (9) open while the body (3) is displaced in the second displacement direction back to said starting position, whereby a biasing of the first spring (16) is accomplished.